IN THE SPECIFICATION

Please replace the paragraph beginning at page 20, line16, with the following rewritten paragraph:

A second variable capacitor C2 and fixed capacitor C3 are connected in parallel to each other between the two terminals of the second fixed coil 36 and ground. The second matching circuit 26 has an automatic matching function so that the input impedance becomes, e.g., 50Ω so as to prevent reflection of the RF power, supplied from the second RF power supply 28 to the lower electrode 18, from returning into the second RF power supply 28 (in the same manner as in the first ~~RF power supply~~ matching circuit 12 described above). At this time, the adjustment position (corresponding to the capacity) of the first variable capacitor C1 which changes automatically can be checked with a position sensor 38. The current of the first RF power supply 14 supplied from the upper electrode 6 flows to ground through the sidewall of the process chamber 4, the lower electrode 18, and the like. Conversely, the current of the second RF power supply 28 supplied from the lower electrode 18 flows to ground through the sidewall of the process chamber 4, the upper electrode 6, and the like.

Please replace the paragraph beginning at page 28, line 4, with the following rewritten paragraph:

FIG. 7A shows a circuit in which a fixed coil 40 and variable capacitor 42 are interchanged. FIG. 7B shows a circuit in which a variable coil 50 capable of changing the inductance, and a fixed capacitor 52 are connected in series. In place of the fixed capacitor 52, a variable capacitor 42 may be provided. FIG. 7C shows a circuit in which a series circuit of a variable capacitor 42 and fixed ~~capacitor~~ coil 55 is connected in parallel to a fixed coil 40. With this arrangement, the series resonance of the variable capacitor 42 and fixed

~~capacitor~~ coil 55 can minimize the impedance. The parallel resonance of the variable capacitor 42, fixed coil 40, and fixed ~~capacitor~~ coil 55 can maximize the impedance.

Please replace the paragraph beginning at page 49, line 19 with the following rewritten paragraph:

FIG. 21A shows a change in bottom voltage Vpp against the fundamental wave (13.56 MHz). The voltage temporarily decreases sharply, even if a little, at the points A1, A2, and A3. FIG. 21B shows a change in bottom voltage Vpp against a second harmonic (27.12 MHz). The voltage increases sharply at the point A1, and resonance with the second harmonic occurs when the dial value DV is "0". FIG. 21C shows a change in bottom voltage Vpp against a ~~second~~ third harmonic (40.68 MHz). The voltage increases sharply at the point A2, and resonance with the second harmonic occurs when the dial value DV is "7.5". FIG. 21D shows a change in bottom voltage Vpp against a ~~second~~ fourth harmonic (54.24 MHz). The voltage increases sharply at the point A3, and resonance with the second harmonic occurs when the dial value DV is "9.9".

Please replace the paragraph beginning at page 51, line 4, with the following rewritten paragraph:

When, the dial value, however, was set at the respective resonance points A1 to A3, the increase in etching rate at the wafer center was suppressed, so the overall etching rate became substantially flat. The planar uniformity of the etching rate was largely improved. In this case, as the harmonic wave becomes ~~third, second,~~ fourth, third or ~~first~~ second harmonic, the etching rate gradually decreased in this order. Thus, to maintain a high etching rate, it is preferable to so adjust the impedance as to resonate particularly with the ~~third~~ fourth

harmonic. When the dial value is set at the point A1, although the planar uniformity can be improved, the etching rate itself becomes excessively low.

Please replace the paragraph beginning at page 54, line 4, with the following rewritten paragraph:

In the case shown in FIG. 25A, three bandpass filters 82A, 82B, and 82C for passing different harmonics are connected to the RF line 24 to be parallel to each other, to form the filter 82. In this case, the first, second, and third bandpass filters 82A, 82B, and 82C pass frequency bands respectively having the second, third, and fourth harmonics as the central frequencies. The bandpass filters 82A, 82B, and 82C do not pass the fundamental wave (13.56 MHz). Variable capacitors 86A, 86B, and 86C and fixed ~~capacitors~~ coils 88A, 88B, and 88C are respectively, separately connected in series to the bandpass filters 82A, 82B, and 82C. Three impedance change units 84A, 84B, and 84C are thus formed. The impedance change units 84A, 84B, and 84C are separately connected in series to the bandpass filters 82A, 82B, and 82C, respectively.